



UNITED STATES DEPARTMENT OF COMMERCE
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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. |
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| 09/101,508 | 09/30/98 | BOYER | J 100983 |

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EXAMINER

CARONE, M

ART UNIT

PAPER NUMBER

3643

DATE MAILED: 09/14/00

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Please find below and/or attached an Office communication concerning this application or proceeding.

Commissioner of Patents and Trademarks

Office Action Summary

Application No.

09/101,508

Applicant(s)

BOYER ET AL.

Examiner

Michael J Carone

Art Unit

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136 (a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 14-29 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 14-29 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claims ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are objected to by the Examiner.
- 11) ☐ The proposed drawing correction filed on ____ is: a) ☐ approved b) ☐ disapproved.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. § 119

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d).
- a) ☐ All b) ☐ Some * c) ☐ None of the CERTIFIED copies of the priority documents have been:
1. ☐ received.
2. ☐ received in Application No. (Series Code / Serial Number) ____.
3. ☐ received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

- 14) ☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. & 119(e).

Attachment(s)

- 15) ☒ Notice of References Cited (PTO-892)
- 16) ☒ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 17) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) ____
- 18) ☐ Interview Summary (PTO-413) Paper No(s). ____
- 19) ☐ Notice of Informal Patent Application (PTO-152)
- 20) ☐ Other: _____

DRAWINGS

The drawings are objected to under 37 CFR 1.84(o) in that the non-descriptive boxes must be labeled for a proper understanding of the invention. Correction is required.

The drawings are objected to as failing to comply with 37 CFR 1.84(p)(5) because they do not include the following reference sign(s) mentioned in the description: Numerous figure elements and numbers are missing from the drawings. Examples include the positions A and C and the U-shaped key 22 as discussed on page 3, line 22; the timing means 30 and priming resistor 12 in Figure 2 as discussed line 25-end of page 3; code wheels 38 and micro-controller 40 identified at the beginning of page 4; switching means 34, drain 53 and means 35 as discussed in the Figure 3 are missing; the mechanical bolt and its three positions as discussed in the middle of page 5. As referred to on page 4, lines 13-15, the changeover switch that is connected to the drain of transistor 55 is not shown in Figure 3. Correction is required.

Applicant is required to submit a proposed drawing correction in reply to this Office action. However, formal correction of the noted defect can be deferred until the application is allowed by the examiner.

SPECIFICATION

The disclosure is objected to because of the following informalities: The preliminary amendment filed on September 30, 1998 does not match up with the specification. For example adding the "Summary of the Invention" at the top of page 2

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inserts the this title in the middle of a sentence. Additionally, the vast majority, if not all of the edits to page 2 through page 11 of the specification are unclear in that the terms being replace do not exists in the indicated lines or even the lines surrounding the indicated lines. It is strongly suggested to provide a substitute specification in an effort to clarify these proposed changes.

Appropriate correction is required.

35 USC 112 1st

Claims 20 and 21 rejected under 35 U.S.C. 112, first paragraph, as containing subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention. It would have been unknown, at the time of the invention what structure or form a "code wheel" would take or what type of structure would constitute a code wheel.

35 USC 112 2nd

Claims 16-29 are rejected as indefinite under 35 USC 112 2nd in that in claim 16, the phrase "...a power intensity sufficient to actuate the firing element upon expiration of a timing interval, *an intensity sufficient to actuate the firing element, ..*" is unclear as to whether the italicized portion emphasized above is duplicative or lacking an intended feature.

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The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

(e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

Claims 14-17 are rejected under 35 U.S.C. 102(b) as being anticipated by Hedberg et al..

Hedberg et al discloses a timing means 10 for timing the action of a firing element 4. An electrical power supply supplies a first intensity to the timing means 10. Power generating means 14 & 5 (capacitor 5, switch 16 and decoder 15) is capable of generating a second power intensity (from the capacitor 5) sufficient to actuate the firing element 4 upon expiration of the timing means. The first power intensity used to power the decoder circuit is clearly insufficient to ignite the detonator.

With respect to claim 17, the decoder is considered to be a microcontroller.

Claims 14 – 19, 22, 25 and 26 are rejected under 35 U.S.C. 102(e) as being anticipate by Beukes et al.

Beukes et al disclose in Figure 7 a system for priming a detonator having a timing device (see the Background of the Invention) firing element 16 initiated by a capacitor C2, a switching means Q5 and a microcontroller control means. Additionally, the abstract indicates that only the larger voltage from the capacitor will ignite the element 16. In column 7, lines 45 –53,

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With respect to claims 22, 25 and 26, Beukes et al disclose a remote programming means for setting the time delays.

35 USC 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 23 and 24 are rejected under 35 U.S.C. 103(a) as being unpatentable over Beukes et al. in view of Jarrott et al.

Although Beukes et al. discloses a "wired" programming means, it is well-known in the art to provide a remote or wireless programming means having photo-transistors for the purpose of reducing wiring as taught by Jarrott et al. It would have been obvious at the time the invention was made to substitute a wired programming means for a remote programming means as taught by Jarrott et al. for the advantage of a wireless system.

Claim 27 is rejected under 35 USC 103(a) as being unpatentable over Beukes et al.

It is has been well established that providing a mechanical means to perform the function of an electrical means and vise-versa are obvious substitutions for the implied advantages of either system.

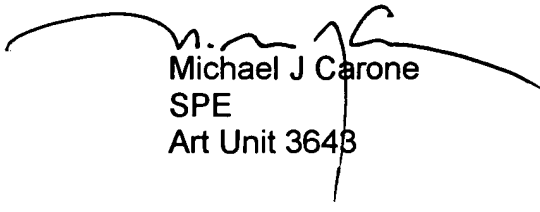
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Claims 28 and 29 are rejected under 35 USC 103(a) as being unpatentable over Beukes et al. in view of Powell.

Powell teaches a booby trap means for detonating the detonator upon breach of the enclosure. It would have been obvious to one having ordinary level of skill in the art to include a booby-trap device on the detonator of Beukes et al. to provide a detonator which would detonate upon breach of the enclosure.

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Any inquiry concerning this communication should be directed to Michael J Carone at telephone number 703 306-4198.



Michael J Carone
SPE
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